

Claims

1. Continuously variable vehicle transmission (1) having a variator (2, 3, 23) such as a toroidal drive or a cone pulley belt drive transmission for continuously variable ratio adjustment and a multi-step transmission (4) with at least one input (7) and one output (8) shaft and at least two forward gears and at least one reverse gear, characterized in that in said multi-step transmission (4) a reversal of direction of rotation takes place between said input (7) and said output (8) shaft by means of at least two forward gears and the reverse gear(s) is/are designed without reversal of direction of rotation between said input (7) and said output (8) shaft.

2. Continuously variable vehicle transmission according to claim 1, characterized in that as variator is specially provided one cone pulley belt drive transmission (2) or a two-way toroidal drive (3), the input (5, 16) and output (6, 21) of said variator having the same direction of rotation, and that on the multi-step transmission (4), for reversal of direction of rotation, a device is rear-mounted, for ex., a spur gear set (12) specially with a rotational speed ratio.

3. Continuously variable vehicle transmission according to claim 2, characterized in that said shafts (5, 6) of said variator (2, 3) and said shafts (16, 21) of said multi-step transmission (4) are disposed side by side in parallel.

4. Continuously variable vehicle transmission according to claim 1, characterized in that said variator is particularly designed as one-way toroidal drive (23) and a reversal of direction of rotation takes place in said variator (23) between said input (5) and said output (6) shaft.

5. Continuously variable vehicle transmission according to claim 4, characterized in that said shafts (5, 6) of said variator (23) and said shafts (7, 8) of said multi-step transmission (4) are disposed coaxially consecutively.

6. Continuously variable vehicle transmission according to any one of the preceding claims, characterized in that said input (7) and said output (8) shafts of said transmission (4) are coaxial to each other and situated on one or both sides of the housing of said transmission (4).

7. Continuously variable vehicle transmission according to any one of the preceding claims, characterized in that said multi-step transmission (4) is designed as planetary transmission.

8. Continuously variable vehicle transmission according any one of the preceding claims, characterized in that a shift clutch of said multi-step transmission (4) is designed as starting clutch.

9. Continuously variable vehicle transmission according to any one of the preceding claims, characterized in that said multi-step transmission (4) is power-shiftable designed. *a*

10. Continuously variable vehicle transmission according any one of the preceding claims, characterized in that two forward drive ranges are shiftable and have an overlapping range (27).

11. Continuously variable vehicle transmission according any one of the preceding claims, characterized in that two forward drive ranges are shiftable and have an overlapping range (27).

12. Continuously variable vehicle transmission according to claim 11, characterized in that a change of the drive range as group shifting is possible, there simultaneously occurring a stepped shift in said multi-step transmission (4) and a ratio adjustment of said variator (2, 3, 23).

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